

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

HFT Solutions, LLC,

*Plaintiff,*

v.

Jump Trading, LLC,

*Defendant.*

Case No. 1:24-cv-13214

Hon. John J. Tharp, Jr.

**JURY TRIAL DEMANDED**

**JUMP TRADING’S ANSWER TO COMPLAINT, AFFIRMATIVE DEFENSES, AND  
COUNTERCLAIMS**

Defendant Jump Trading, LLC (“Jump Trading”) answers Plaintiff HFT Solutions, LLC’s (“HFT Solutions” or “Plaintiff”) Complaint (the “Complaint”) as follows. Except as expressly stated, Jump Trading denies each and every allegation in Plaintiff’s Complaint. Jump Trading specifically denies that it infringes or has infringed United States Patent Nos. 10,931,286 (the “’286 patent”), 11,128,305 (the “’305 patent”), or 11,575,381 (the “’381 patent”) (collectively the “Asserted Patents”). Jump Trading’s specific responses to the numbered allegations are set forth below.

**PLAINTIFF HFT SOLUTIONS AND THE ASSERTED PATENTS**

1. Plaintiff is a corporation organized under the laws of the State of Delaware, with a principal place of business at 65 Locust Avenue, Suite 300, New Canaan, CT 06840.

**ANSWER:** Jump Trading lacks knowledge or information sufficient to form a belief about the truth of the allegations in paragraph 1 and therefore denies them.

2. Plaintiff is the owner of all right, title, and interest in U.S. Patent No. 10,931,286, titled “Field programmable gate array with external phase-locked loop,” and issued February 23, 2021. A copy of the ’286 patent is attached as Exhibit 1.

**ANSWER:** Jump Trading admits that Exhibit 1 purports to be a copy of the '286 patent. Jump Trading admits that the face of the '286 patent includes the title "Field programmable gate array with external phase-locked loop," and an issue date of February 23, 2021. Jump Trading lacks knowledge or information sufficient to form a belief about the truth of the remaining allegations in paragraph 2 and therefore denies them.

3. Plaintiff is the owner of all right, title, and interest in U.S. Patent No. 11,128,305, titled "Field programmable gate array with external phase-locked loop," and issued September 21, 2021. A copy of the '305 patent is attached as Exhibit 2.

**ANSWER:** Jump Trading admits that Exhibit 2 purports to be a copy of the '305 patent. Jump Trading admits that the face of the '305 patent includes the title "Field programmable gate array with external phase-locked loop," and an issue date of September 21, 2021. Jump Trading lacks knowledge or information sufficient to form a belief about the truth of the remaining allegations in paragraph 3 and therefore denies them.

4. Plaintiff is the owner of all right, title, and interest in U.S. Patent No. 11,575,381, titled "Field programmable gate array with external phase-locked loop," and issued February 7, 2023. A copy of the '381 patent is attached as Exhibit 3.

**ANSWER:** Jump Trading admits that Exhibit 3 purports to be a copy of the '381 patent. Jump Trading admits that the face of the '381 patent includes the title "Field programmable gate array with external phase-locked loop," and an issue date of February 7, 2023. Jump Trading lacks knowledge or information sufficient to form a belief about the truth of the remaining allegations in paragraph 4 and therefore denies them.

#### **JUMP TRADING AND ACCUSED INSTRUMENTALITIES**

5. On information and belief, Defendant Jump Trading, LLC is a corporation organized under the laws of Delaware, with a principal place of business at 600 West Chicago Avenue, Suite 600, Chicago, IL 60654.

**ANSWER:** Jump Trading admits that Jump Trading, LLC is an entity organized under the laws of Delaware, with a place of business at 600 West Chicago Avenue, Suite 600, Chicago, IL 60654. Jump Trading denies the remaining allegations in paragraph 5.

6. On information and belief, Jump Trading is a trading firm engaged in various high frequency trading strategies. High frequency trading strategies are reliant on the speed at which certain transactions can be made to provide a superior market return. These strategies fundamentally rely on being able to execute trades faster, sometimes microseconds faster, than competitors.

**ANSWER:** Jump Trading admits that Jump Trading is a trading firm engaged in various high frequency trading strategies. Jump Trading denies the remaining allegations in paragraph 6.

7. The Accused Instrumentalities are FPGA systems and platforms made, used, offered for sale, sold, or imported by Defendant in the United States since February 23, 2021, including trading systems and platforms that include FPGA boards such as the Bittware XUP-VV8 and AMD Alveo UL3524 and UL3422 FPGA boards. On information and belief, Xilinx, maker of the FPGAs in the Bittware XUP-VV8 board, was acquired by AMD in June 2022. *See* <https://www.amd.com/en/newsroom/press-releases/2022-2-14-amd-completes-acquisition-of-xilinx.html>.

**ANSWER:** Jump Trading admits that HFT purports to rely on a website, which website speaks for itself. Jump Trading denies that it has committed any act of infringement, and denies any remaining allegations in paragraph 7.

8. On information and belief, in order to achieve competitive trading speeds, Jump Trading uses the fastest available FPGA systems and platforms, including the Accused Instrumentalities which Jump Trading configures and uses in the manner reflected in Exhibits 4-6. *See, e.g.,* [https://www.jumptrading.com/careers/6165578/?gh\\_jid=6165578](https://www.jumptrading.com/careers/6165578/?gh_jid=6165578) (“[O]ur FPGA team... is building next-generation, ultra-low-latency systems to power trading with machine learning and other algorithms on a global scale.”); <https://www.amd.com/en/products/accelerators/alveo/ul3524.html#product-brief> (“The device features a breakthrough transceiver architecture to achieve less than 3ns latency for world-class trade execution, delivering 7X greater performance vs. previous FPGA technology.”).

**ANSWER:** Jump Trading denies the allegations in paragraph 8.

### **JURISDICTION AND VENUE**

9. This action arises under the patent laws of the United States, Title 35 of the United States Code.

**ANSWER:** Responding to paragraph 9, Jump Trading admits that the Complaint purports to set forth a claim arising under the patent laws of the United States, Title 35 of the United States Code, but denies that Jump Trading has engaged in any act of infringement or that there is any basis for the allegations set forth in the Complaint.

10. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

**ANSWER:** Responding to paragraph 10, Jump Trading admits that this Court has original subject matter jurisdiction over the purported claims in the Complaint, but denies that Jump Trading has engaged in any act of infringement or that there is any basis for the allegations set forth in the Complaint.

11. This Court has personal jurisdiction over Defendant in this action because Defendant has committed acts of infringement within this District giving rise to this action, has a regular and established place of business in this District, and has established minimum contacts with this forum such that the exercise of jurisdiction over Defendant would not offend traditional notions of fair play and substantial justice.

**ANSWER:** Responding to paragraph 11, Jump Trading admits that, for purposes of this action only, this Court has personal jurisdiction over it. Jump Trading denies that it has committed any act of infringement within this District or elsewhere.

12. Defendant, directly and/or through subsidiaries or intermediaries, conducts its business extensively in this District, including by operating electronic trading platforms, performing trading and market making activities, and providing financial services to customers. Defendant regularly does business or solicits business, engages in other persistent courses of conduct, and/or derives substantial revenue from products and/or services provided to entities in Illinois, and commits acts of infringement of the Asserted Patents in this District, including by using the Accused Instrumentalities to perform high frequency trading.

**ANSWER:** Jump Trading admits that, for purposes of this action only, this Court has personal jurisdiction over it. Jump Trading denies that it has committed any acts of infringement within this District or elsewhere, denies that it provides financial services, denies that it has customers, denies that it solicits business, denies that it derives substantial (or any) revenue from

products and/or services provided to entities in Illinois, and denies any remaining allegations in paragraph 12.

13. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b). Defendant has transacted business and committed acts of infringement in this District, including through its use of the Accused Instrumentalities in this District.

**ANSWER:** Responding to paragraph 13, Jump Trading admits that, for purposes of this action only, venue is proper in this District. Jump Trading denies that it has committed any acts of infringement within this District or elsewhere.

**COUNT 1 – PLAINTIFF’S CLAIM FOR ALLEGED INFRINGEMENT OF THE ’286 PATENT**

14. Each of the allegations in the foregoing paragraphs are incorporated by reference as if fully set forth herein.

**ANSWER:** Responding to paragraph 14, Jump Trading repeats and realleges by reference its responses to paragraphs 1 through 13 as if fully set forth herein.

15. On May 28, 2019, the United States Patent and Trademark Office issued U.S. Patent No. 10,931,286, titled “Field programmable gate array with external phase-locked loop.” Exhibit 1.

**ANSWER:** Jump Trading admits that Exhibit 1 purports to be a copy of the ’286 patent. Jump Trading admits that the face of the U.S. Patent No. 10,931,286 includes the title “Field programmable gate array with external phase-locked loop.” Jump Trading denies the remaining allegations of paragraph 15.

16. Plaintiff is the owner of the ’286 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

**ANSWER:** Jump Trading lacks knowledge or information sufficient to form a belief about the truth of the allegations in paragraph 16 and therefore denies them.

17. The claims of the ’286 patent were duly issued by the United States Patent and Trademark Office and are presumed by statute to be valid.

**ANSWER:** Jump Trading denies the allegations of paragraph 17.

18. The claims of the '286 patent are patent eligible under 35 U.S.C. §101.

**ANSWER:** Jump Trading denies the allegations in paragraph 18.

19. The claims of the '286 patent are not directed to abstract ideas and recite technical solutions to technical problems related to, for example, processing delays caused by clock domain crossing circuits, and phase synchronization between receiver and transmitter side clocks. *See, e.g.,* '286 patent at 1:31-55.

**ANSWER:** Jump Trading denies the allegations in paragraph 19.

20. The written description of the '286 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the nonconventional and non-generic combination of claim limitations is patentably distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

**ANSWER:** Jump Trading denies the allegations in paragraph 20.

21. On information and belief, Defendant has directly infringed (literally and equivalently) the '286 patent by, without a license or permission from Plaintiff, making, using, offering for sale, selling, or importing the Accused Instrumentalities in the United States to perform methods that infringe claims of the '286 patent.

**ANSWER:** Jump Trading denies the allegations in paragraph 21.

22. On information and belief, the Accused Instrumentalities employ, implement, or utilize materially the same features such that one Accused Instrumentality is representative of all Accused Instrumentalities with respect to infringement of the '286 patent.

**ANSWER:** Jump Trading denies the allegations in paragraph 22.

23. Defendant's use of the Accused Instrumentalities satisfies all claim limitations of one or more claims of the '286 Patent. For example, as shown in Exhibit 4 which is incorporated herein by reference, Defendant's use of the Accused Instrumentalities infringes claim 1 of the '286 patent.

**ANSWER:** Jump Trading denies the allegations in paragraph 23.

24. Since at least service of this Complaint, Defendant's infringement has been and continues to be willful. Defendant has had knowledge of the '286 patent—and without a good faith belief of invalidity or noninfringement, has known or been willfully blind to the fact that its use of the Accused Instrumentalities infringes the '286 patent—since at least service of this Complaint.

**ANSWER:** Jump Trading denies the allegations in paragraph 24.

25. Defendant and its customers derive benefits from Defendant's infringement of the '286 patent including, for example, higher success rates and increased profits in latency sensitive trades, extremely latency sensitive trades, and other trading activities affected by latency.

**ANSWER:** Jump Trading denies the allegations in paragraph 25.

26. Plaintiff has been damaged by Defendant's infringement of the '286 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

**ANSWER:** Jump Trading denies the allegations in paragraph 26.

**COUNT 2 – PLAINTIFF'S CLAIM FOR ALLEGED INFRINGEMENT OF THE '305 PATENT**

27. Each of the allegations in the foregoing paragraphs are incorporated by reference as if fully set forth herein.<sup>1</sup>

**ANSWER:** Responding to paragraph 27, Jump Trading repeats and realleges by reference its responses to paragraphs 1 through 26 as if fully set forth herein.

28. On September 21, 2021, the United States Patent and Trademark Office issued U.S. Patent No. 11,128,305, titled "Field programmable gate array with external phase-locked loop." Exhibit 2.

**ANSWER:** Responding to paragraph 28, Jump Trading admits that Exhibit 2 purports to be a copy of the '305 patent. Jump Trading admits that the face of the '305 patent includes the title "Field programmable gate array with external phase-locked loop," and an issue date of September 21, 2021.

29. Plaintiff is the owner of the '305 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

**ANSWER:** Jump Trading lacks knowledge or information sufficient to form a belief about the truth of the allegations in paragraph 29 and therefore denies them.

30. The claims of the '305 patent were duly issued by the United States Patent and Trademark Office and are presumed by statute to be valid.

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<sup>1</sup> The Complaint's paragraph numbering restarts at "1" under Count 2. For simplicity, in this Answer, Jump Trading has continued the numbering from Count 1 of the Complaint. Thus, Complaint paragraph "1" under Count 2 corresponds to paragraph "27" in this Answer, Complaint paragraph "2" under Count 2 corresponds to paragraph "28" in this Answer, and so on.

**ANSWER:** Jump Trading denies the allegations in paragraph 30.

31. The claims of the '305 patent are patent eligible under 35 U.S.C. §101.

**ANSWER:** Jump Trading denies the allegations in paragraph 31.

32. The claims of the '305 patent are not directed to abstract ideas and recite technical solutions to technical problems related to, for example, processing delays caused by clock domain crossing circuits, and phase synchronization between receiver and transmitter side clocks, in FPGA systems. *See, e.g.*, '305 patent at 1:34-58.

**ANSWER:** Jump Trading denies the allegations in paragraph 32.

33. The written description of the '305 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the nonconventional and non-generic combination of claim limitations is patentably distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

**ANSWER:** Jump Trading denies the allegations in paragraph 33.

34. On information and belief, Defendant has directly infringed (literally and equivalently) the '305 patent by, without a license or permission from Plaintiff, making, using, offering for sale, selling, or importing the Accused Instrumentalities, which infringe claims of the '305 patent, in the United States.

**ANSWER:** Jump Trading denies the allegations in paragraph 34.

35. On information and belief, the Accused Instrumentalities employ, implement, or utilize materially the same features such that one Accused Instrumentality is representative of all Accused Instrumentalities with respect to infringement of the '305 patent.

**ANSWER:** Jump Trading denies the allegations in paragraph 35.

36. The Accused Instrumentalities satisfy all claim limitations of one or more claims of the '305 Patent. For example, as shown in Exhibit 5 which is incorporated herein by reference, the Accused Instrumentalities infringe claim 1 of the '305 patent.

**ANSWER:** Jump Trading denies the allegations in paragraph 36.

37. Since at least service of this Complaint, Defendant's infringement has been and continues to be willful. Defendant has had knowledge of—and without a good faith belief of invalidity or noninfringement, has known or been willfully blind to the fact that its use of the Accused Instrumentalities infringes—the '305 patent, since at least service of this Complaint.

**ANSWER:** Jump Trading denies the allegations in paragraph 37.



38. Defendant and its customers derive benefits from Defendant's infringement of the '305 patent including, for example, higher success rates and increased profits in latency sensitive trades, extremely latency sensitive trades, and other trading activities affected by latency.

**ANSWER:** Jump Trading denies the allegations in paragraph 38.

39. Plaintiff has been damaged by Defendant's infringement of the '305 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

**ANSWER:** Jump Trading denies the allegations in paragraph 39.

**COUNT 3 – PLAINTIFF'S CLAIM FOR ALLEGED INFRINGEMENT OF THE '381 PATENT**

40. Each of the allegations in the foregoing paragraphs are incorporated by reference as if fully set forth herein.

**ANSWER:** Responding to paragraph 40, Jump Trading repeats and realleges by reference its responses to paragraphs 1 through 39 as if fully set forth herein.

41. On February 7, 2023, the United States Patent and Trademark Office issued U.S. Patent No. 11,575,381, titled "Field programmable gate array with external phase-locked loop." Exhibit 3.

**ANSWER:** Responding to paragraph 41, Jump Trading admits that Exhibit 3 purports to be a copy of the '381 patent. Jump Trading admits that the face of the '381 patent includes the title "Field programmable gate array with external phase-locked loop," and an issue date of February 7, 2023.

42. Plaintiff is the owner of the '381 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

**ANSWER:** Jump Trading lacks knowledge or information sufficient to form a belief about the truth of the allegations in paragraph 42 and therefore denies them.

43. The claims of the '381 patent were duly issued by the United States Patent and Trademark Office and are presumed by statute to be valid.

**ANSWER:** Jump Trading denies the allegations in paragraph 43.

44. The claims of the '381 patent are patent eligible under 35 U.S.C. §101.

**ANSWER:** Jump Trading denies the allegations in paragraph 44.

45. The claims of the '381 patent are not directed to abstract ideas and recite technical solutions to technical problems related to, for example, processing delays caused by clock domain crossing circuits, and phase synchronization between receiver and transmitter side clocks, in FPGA systems. *See, e.g.*, '381 patent at 1:39-62.

**ANSWER:** Jump Trading denies the allegations in paragraph 45.

46. The written description of the '381 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the nonconventional and non-generic combination of claim limitations is patentably distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

**ANSWER:** Jump Trading denies the allegations in paragraph 46.

47. On information and belief, Defendant has directly infringed (literally and equivalently) the '381 patent by, without a license or permission from Plaintiff, making, using, offering for sale, selling, or importing the Accused Instrumentalities in the United States to perform methods that infringe claims of the '381 patent.

**ANSWER:** Jump Trading denies the allegations in paragraph 47.

48. On information and belief, the Accused Instrumentalities employ, implement, or utilize materially the same features such that one Accused Instrumentality is representative of all Accused Instrumentalities with respect to infringement of the '381 patent.

**ANSWER:** Jump Trading denies the allegations in paragraph 48.

49. Defendant's use of the Accused Instrumentalities satisfies all claim limitations of one or more claims of the '381 Patent. For example, as shown in Exhibit 6 which is incorporated herein by reference, Defendant's use of the Accused Instrumentalities infringes claim 1 of the '381 patent.

**ANSWER:** Jump Trading denies the allegations in paragraph 49.

50. Since at least service of this Complaint, Defendant's infringement has been and continues to be willful. Defendant has had knowledge of—and without a good faith belief of invalidity or noninfringement, has known or been willfully blind to the fact that its use of the Accused Instrumentalities infringes—the '381 patent, since at least service of this Complaint.

**ANSWER:** Jump Trading denies the allegations in paragraph 50.

51. Defendant and its customers derive benefits from Defendant's infringement of the '381 patent including, for example, higher success rates and increased profits in latency sensitive trades, extremely latency sensitive trades, and other trading activities affected by latency.

**ANSWER:** Jump Trading denies the allegations in paragraph 51.

52. Plaintiff has been damaged by Defendant's infringement of the '381 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

**ANSWER:** Jump Trading denies the allegations in paragraph 52.

### **PLAINTIFF'S JURY DEMAND**

53. Plaintiff demands a jury trial pursuant to Federal Rule of Civil Procedure 38.

**ANSWER:** Responding to paragraph 53, Jump Trading demands a jury trial on all issues so triable pursuant to Federal Rule of Civil Procedure 38.

### **RESPONSE TO PLAINTIFF'S REQUESTED RELIEF**

Jump Trading denies that Plaintiff is entitled to any relief whatsoever, either as prayed for in the Complaint or otherwise.

### **AFFIRMATIVE DEFENSES**

Jump Trading incorporates by reference as if fully set forth herein its response to paragraphs 1 through 53 of the Complaint. Jump Trading denies any allegations in the Complaint not specifically admitted above. Jump Trading asserts the following defenses based on current information and belief, undertaking the burden of proof only as to those defenses required by law, regardless of how such defenses are denominated herein. Jump Trading reserves the right to amend and/or supplement these defenses, or allege additional defenses, at law or in equity, as additional facts become known through the course of discovery or otherwise through further investigation in this case.

#### **FIRST AFFIRMATIVE DEFENSE** **Non-Infringement of the '286 Patent**

1. Jump Trading does not and has not infringed any valid and enforceable claim of the '286 patent under any theory (including, but not limited to, directly, indirectly, literally, and/or under the doctrine of equivalents).

**SECOND AFFIRMATIVE DEFENSE**  
**Non-Infringement of the '305 Patent**

2. Jump Trading does not and has not infringed any valid and enforceable claim of the '305 patent under any theory (including, but not limited to, directly, indirectly, literally, and/or under the doctrine of equivalents).

**THIRD AFFIRMATIVE DEFENSE**  
**Non-Infringement of the '381 Patent**

3. Jump Trading does not and has not infringed any valid and enforceable claim of the '381 patent under any theory (including, but not limited to, directly, indirectly, literally, and/or under the doctrine of equivalents).

**FOURTH AFFIRMATIVE DEFENSE**  
**Invalidity of the '286 Patent**

4. Each claim of the '286 patent is invalid for failing to meet one or more of the conditions for patentability set forth in 35 U.S.C. § 1, *et seq.*, including, but not limited to, §§ 101, 102, 103, and/or 112.

**FIFTH AFFIRMATIVE DEFENSE**  
**Invalidity of the '305 Patent**

5. Each claim of the '305 patent is invalid for failing to meet one or more of the conditions for patentability set forth in 35 U.S.C. § 1, *et seq.*, including, but not limited to, §§ 101, 102, 103, and/or 112.

**SIXTH AFFIRMATIVE DEFENSE**  
**Invalidity of the '381 Patent**

6. Each claim of the '381 patent is invalid for failing to meet one or more of the conditions for patentability set forth in 35 U.S.C. § 1, *et seq.*, including, but not limited to, §§ 101, 102, 103, and/or 112.

**SEVENTH AFFIRMATIVE DEFENSE**  
**Failure to State a Claim**

7. Plaintiff fails to state a claim on which relief can be granted.

**EIGHTH AFFIRMATIVE DEFENSE**  
**Non-Exceptional Case**

8. Plaintiff has not alleged any basis for, and cannot prove that, this is an exceptional case that would justify an award of attorneys' fees against Jump Trading pursuant to 35 U.S.C. § 285.

**NINTH AFFIRMATIVE DEFENSE**  
**Lack of Willfulness or Increased Damages**

9. Jump Trading has not willfully infringed the Asserted Patents, and Plaintiff cannot recover increased damages pursuant to 35 U.S.C. § 284.

**DEFENDANT'S COUNTERCLAIMS**

Pursuant to Federal Rule of Civil Procedure 13, Counterclaim Plaintiff Jump Trading, LLC ("Jump Trading"), by and through its attorneys, states the following as its Counterclaims against Counterclaim Defendant HFT Solutions, LLC ("HFT Solutions"):

**THE PARTIES**

1. Jump Trading is a limited liability company organized under the laws of Delaware, with a principal place of business at 600 West Chicago Avenue, Suite 600, Chicago, IL, 60654.
2. On information and belief based solely on paragraph 1 of the Complaint as pled by Plaintiff, HFT Solutions is a corporation organized under the laws of Delaware, with a principal place of business at 65 Locust Avenue, Suite 300, New Canaan, CT 06840.

### **JURISDICTION AND VENUE**

3. This action arises under, *inter alia*, the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.* and the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202. An actual controversy exists between HFT Solutions and Jump Trading.

4. This Court has jurisdiction and venue over these counterclaims pursuant to 28 U.S.C. §§ 1331, 1338(a), 2201, and 2202.

5. HFT Solutions is subject to personal jurisdiction of this Court for at least the reason that, in filing its own Complaint, HFT Solutions has submitted to the personal jurisdiction of this Court.

6. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b).

### **FIRST COUNTERCLAIM**

#### **Declaration of Non-Infringement of U.S. Patent No. 10,931,286**

7. Jump Trading restates, re-alleges, and incorporates by reference each of the allegations set forth above as if fully set forth herein.

8. HFT Solutions claims to be the owner of all rights, title, and interest in U.S. Patent No. 10,931,286 (the “’286 patent”).

9. HFT Solutions has alleged that Jump Trading infringes at least claim 1 of the ’286 patent, and has created a substantial, immediate, and real controversy between the parties as to the infringement of the ’286 patent.

10. Jump Trading has not and does not infringe any claim of the ’286 patent directly, indirectly, contributorily, by inducement, literally or under the doctrine of equivalents, or in any other manner, at least because, by way of non-limiting example, Jump Trading does not make, use, offer for sale, sell, or import any FPGA system—and/or HFT Solutions’ infringement allegations

fail to show that Jump Trading makes, uses, offers for sale, sells, or imports any FPGA system—that satisfies any claim of the '286 patent.

11. Accordingly, Jump Trading is entitled to a declaration that it does not infringe and has not infringed any claim of the '286 patent.

**SECOND COUNTERCLAIM**

**Declaration of Non-infringement of U.S. Patent No. 11,128,305**

12. Jump Trading restates, re-alleges, and incorporates by reference each of the allegations set forth above as if fully set forth herein.

13. HFT Solutions claims to be the owner of all rights, title, and interest in U.S. Patent No. 11,128,305 (the "'305 patent").

14. HFT Solutions has alleged that Jump Trading infringes at least claim 1 of the '305 patent, and has created a substantial, immediate, and real controversy between the parties as to the infringement of the '305 patent.

15. Jump Trading has not and does not infringe any claim of the '305 patent directly, indirectly, contributorily, by inducement, literally or under the doctrine of equivalents, or in any other manner, at least because, by way of non-limiting example, Jump Trading does not make, use, offer for sale, sell, or import any FPGA system—and/or HFT Solutions' infringement allegations fail to show that Jump Trading makes, uses, offers for sale, sells, or imports any FPGA system—that satisfies any claim of the '305 patent.

16. Accordingly, Jump Trading is entitled to a declaration that it does not infringe and has not infringed any claim of the '305 patent.

**THIRD COUNTERCLAIM**

**Declaration of Non-infringement of U.S. Patent No. 11,575,381**

17. Jump Trading restates, re-alleges, and incorporates by reference each of the allegations set forth above as if fully set forth herein.

18. HFT Solutions claims to be the owner of all rights, title, and interest in U.S. Patent No. 11,575,381 (the “’381 patent”).

19. HFT Solutions has alleged that Jump Trading infringes at least claim 1 of the ’381 patent, and has created a substantial, immediate, and real controversy between the parties as to the infringement of the ’381 patent.

20. Jump Trading has not and does not infringe any claim of the ’381 patent directly, indirectly, contributorily, by inducement, literally or under the doctrine of equivalents, or in any other manner, at least because, by way of non-limiting example, Jump Trading does not make, use, offer for sale, sell, or import any FPGA system—and/or HFT Solutions’ infringement allegations fail to show that Jump Trading makes, uses, offers for sale, sells, or imports any FPGA system—that satisfies any claim of the ’381 patent.

21. Accordingly, Jump Trading is entitled to a declaration that it does not infringe and has not infringed any claim of the ’381 patent.

**FOURTH COUNTERCLAIM**  
**Declaration of Invalidity of U.S. Patent No. 10,931,286**

22. Jump Trading restates, re-alleges, and incorporates by reference each of the allegations set forth above as if fully set forth herein.

23. The Asserted Claims of the ’286 patent fail to meet the conditions of patentability and/or otherwise comply with one or more provisions of 35 U.S.C. §§ 101 *et seq.*, including at least 35 U.S.C. §§ 101, 102, 103, and/or 112.

24. By way of non-limiting example, the claims of the ’286 patent are anticipated and/or rendered obvious under 35 U.S.C. §§ 102 and/or 103(a) by Applicant admitted prior art, references cited on the face of the ’286 patent, and other prior art references, alone and/or in combination with the knowledge of a person of ordinary skill in the art.



25. Accordingly, Jump Trading is entitled to a declaration that the Asserted Claims of the '286 patent are invalid and fail to comply with one or more provisions of 35 U.S.C. §§ 101 *et seq.*, including at least 35 U.S.C. §§ 101, 102, 103, and/or 112.

**FIFTH COUNTERCLAIM**  
**Declaration of Invalidity of U.S. Patent No. 11,128,305**

26. Jump Trading restates, re-alleges, and incorporates by reference each of the allegations set forth above as if fully set forth herein.

27. The Asserted Claims of the '305 patent fail to meet the conditions of patentability and/or otherwise comply with one or more provisions of 35 U.S.C. §§ 101 *et seq.*, including at least 35 U.S.C. §§ 101, 102, 103, and/or 112.

28. By way of non-limiting example, the claims of the '305 patent are anticipated and/or rendered obvious under 35 U.S.C. §§ 102 and/or 103(a) by Applicant admitted prior art, references cited on the face of the '305 patent, and other prior art references, alone and/or in combination with the knowledge of a person of ordinary skill in the art.

29. Accordingly, Jump Trading is entitled to a declaration that the Asserted Claims of the '305 patent are invalid and fail to comply with one or more provisions of 35 U.S.C. §§ 101 *et seq.*, including at least 35 U.S.C. §§ 101, 102, 103, and/or 112.

**SIXTH COUNTERCLAIM**  
**Declaration of Invalidity of U.S. Patent No. 11,575,381**

30. Jump Trading restates, re-alleges, and incorporates by reference each of the allegations set forth above as if fully set forth herein.

31. The Asserted Claims of the '381 patent fail to meet the conditions of patentability and/or otherwise comply with one or more provisions of 35 U.S.C. §§ 101 *et seq.*, including at least 35 U.S.C. §§ 101, 102, 103, and/or 112.

32. By way of non-limiting example, the claims of the '381 patent are anticipated and/or rendered obvious under 35 U.S.C. §§ 102 and/or 103(a) by Applicant admitted prior art; references cited on the face of the '381 patent, and other prior art references, alone and/or in combination with the knowledge of a person of ordinary skill in the art.

33. Accordingly, Jump Trading is entitled to a declaration that the Asserted Claims of the '381 patent are invalid and fail to comply with one or more provisions of 35 U.S.C. §§ 101 *et seq.*, including at least 35 U.S.C. §§ 101, 102, 103, and/or 112.

#### **JUMP TRADING'S JURY DEMAND**

Jump Trading demands a jury trial on all issues so triable pursuant to Federal Rule of Civil Procedure 38.

#### **JUMP TRADING'S PRAYER FOR RELIEF**

For the foregoing reasons, Defendant Jump Trading respectfully requests that this Court:

- A. Find and declare that Jump Trading has not directly, indirectly, contributorily, by inducement, literally, or under the doctrine of equivalents infringed the '286 patent;
- B. Find and declare that Jump Trading has not directly, indirectly, contributorily, by inducement, literally, or under the doctrine of equivalents infringed the '305 patent;
- C. Find and declare that Jump Trading has not directly, indirectly, contributorily, by inducement, literally, or under the doctrine of equivalents infringed the '381 patent;
- D. Find and declare that the asserted claims of the '286 patent are invalid;
- E. Find and declare that the asserted claims of the '305 patent are invalid;
- F. Find and declare that the asserted claims of the '381 patent are invalid;
- G. Deny all relief requested by Plaintiff;
- H. Dismiss this action in its entirety with prejudice;

I. Grant Jump Trading its costs (including expert fees), disbursements, and reasonable attorneys' fees in this action, pursuant to 35 U.S.C. § 285 thereon; and

J. Grant other and further relief as the Court may deem just and proper.

Dated: April 7, 2025

Respectfully submitted,

/s/ Matthew J. Hertko

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*Counsel for Defendant Jump Trading, LLC*

**CERTIFICATE OF SERVICE**

I hereby certify that on April 7, 2025 a copy of the foregoing was filed using the CM/ECF system, which will effectuate service on all counsel of record.

/s/ Matthew J. Hertko

Matthew J. Hertko

*Counsel for Defendant Jump Trading, LLC*